

AMENDMENTS TO THE CLAIMS

This listing replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (Withdrawn Currently Amended) A method of inhibiting or treating a tumor or infectious lesion in a subject, comprising[[:]] administering into or near a site of a tumor or infectious lesion in a subject an effective amount of ~~an antigen-presenting cell and an immunostimulatory cytokine or a nucleic acid encoding an immunostimulatory cytokine~~ the therapeutic composition according to claim 27 [or 36].

2. (Withdrawn) The method of claim 1, wherein the antigen presenting cell is a dendritic cell.

3. (Withdrawn) The method of claim 2, wherein the dendritic cell is selected from the group consisting of a CD34+-derived dendritic cell, a bone marrow-derived dendritic cell, a monocyte derived dendritic cell, a splenocyte derived dendritic cell, a skin-derived dendritic cell, a follicular dendritic cell, and a germinal center dendritic cell.

4. (Withdrawn) The method of claim 1, wherein the dendritic cell is a CD34+-derived dendritic cell cultured in the presence of at least one factor selected from the group consisting of granulocyte colony stimulating factor, granulocyte macrophage colony stimulatory factor, tumor necrosis factor alpha, interleukin 4, the Flt-3 ligand, and the kit ligand.

5. (Withdrawn) The method of claim 1, wherein the antigen presenting cell is selected from a group consisting of a Langherhans' cell, an interdigitating cell, a B cell, and a macrophage.

6. (Withdrawn) The method of claim 1, wherein the immunostimulatory cytokine is selected from the group consisting of interleukin-1 α ., interleukin-1 β , interleukin-2, interleukin-3, interleukin-4, interleukin-6, interleukin-8, interleukin-9, interleukin-10, interleukin-12, interleukin-18, interleukin-19, interleukin-20, interleukin-23, interleukin-27, interleukin-1f3, interleukin-1f5, interleukin-1f6, interleukin-1f7, interleukin-1f8, interleukin-1f9, interleukin-1f10, interferon- α ., interferon- β , interferon- γ , tumor necrosis factor α , transforming growth factor- β , granulocyte colony stimulating factor, macrophage colony stimulating factor, granulocyte-macrophage colony stimulating factor, the Flt3 ligand, and the kit ligand.

7. (Withdrawn) The method of claim 1, wherein the expression vector is a viral vector.

8. (Withdrawn) The method of claim 2, wherein the expression vector is selected from the group consisting of an adenoviral vector, an adeno-associated viral vector, a retroviral vector, a lentiviral vector, a herpes viral vector, and a vaccinia viral vector.

9. (Withdrawn) The method of claim 1, wherein the subject has a tumor selected from the group consisting of melanoma, hepatoma, adenocarcinoma, colorectal cancer, basal cell cancer, oral cancer, nasopharyngeal cancer, laryngeal cancer, bladder cancer, head and neck cancer, renal cell cancer, pancreatic cancer, pulmonary cancer, cervical cancer, ovarian cancer, esophageal cancer, gastric cancer, prostate cancer, testicular cancer, and breast cancer.

10. (Withdrawn) The method of claim 1, wherein the size of the tumor or infectious lesion is decreased.

11. (Withdrawn) The method of claim 1, wherein said administering step comprises injecting into the tumor or infectious lesion.

12. (Withdrawn) The method of claim 1, wherein said administering step comprises injecting the subject within the same organ as the tumor or infectious lesion.

13. (Withdrawn) A method of inhibiting or treating metastasis of a tumor in a subject, comprising: administer into or near a site of a tumor in a subject an effective amount of an antigen presenting cell and an immunostimulatory cytokine or a nucleic acid encoding an immunostimulatory cytokine.

14. (Withdrawn) The method of claim 13, wherein the antigen presenting cell is a dendritic cell.

15. (Withdrawn) The method of claim 14, wherein the dendritic cell is selected from the group consisting of a CD34+-derived dendritic cell, a bone marrow-derived dendritic cell, a monocyte-derived dendritic cell, a splenocyte derived dendritic cell, a skin-derived dendritic cell, a follicular dendritic cell, and a germinal center dendritic cell.

16. (Withdrawn) The method of claim 13, wherein the dendritic cell is a CD34+-derived dendritic cell cultured in the presence of at least one factor selected from the group consisting of granulocyte colony stimulating factor, granulocyte macrophage colony stimulatory factor, tumor necrosis factor alpha, interleukin 4, the Flt-3 ligand, and the kit ligand.

17. (Withdrawn) The method of claim 13, wherein the antigen presenting cell is selected from a group consisting of a Langherhans' cell, an interdigitating cell, a B cell, and a macrophage.

18. (Withdrawn) The method of claim 13, wherein the immunostimulatory cytokine is selected from the group consisting of interleukin-1 α , interleukin-1 β , interleukin-2, interleukin-3, interleukin-4, interleukin-6, interleukin-8, interleukin-9, interleukin-10, interleukin-12, interleukin-18,

interleukin-19, interleukin-20, interleukin-23, interleukin-27, interleukin-1f3, interleukin-1f5, interleukin-1f6, interleukin-1f7, interleukin-1f8, interleukin-1f9, interleukin-1f10, interferon- α , interferon- β , interferon- γ , tumor necrosis factor α , transforming growth factor- β , granulocyte colony stimulating factor, macrophage colony stimulating factor, granulocyte-macrophage colony stimulating factor, the Flt3 ligand, and the kit ligand.

19. (Withdrawn) The method of claim 13, wherein the expression vector is a viral vector.

20. (Withdrawn) The method of claim 13, wherein the expression vector is selected from the group consisting of an adenoviral vector, an adeno-associated viral vector, a retroviral vector, a lentiviral vector, a herpes viral vector, and a vaccinia viral vector.

21. (Withdrawn) The method of claim 13, wherein the subject has a tumor selected from the group consisting of melanoma, hepatoma, adenocarcinoma, colorectal cancer, basal cell cancer, oral cancer, nasopharyngeal cancer, laryngeal cancer, bladder cancer, head and neck cancer, renal cell cancer, pancreatic cancer, pulmonary cancer, cervical cancer, ovarian cancer, esophageal cancer, gastric cancer, prostate cancer, testicular cancer, and breast cancer.

22. (Withdrawn) The method of claim 13, wherein the size of the tumor or infectious lesion is decreased.

23. (Withdrawn) The method of claim 13, wherein the size of the metastasis is decreased.

24. (Withdrawn) The method of claim 13, wherein the number of the metastases is

25. (Withdrawn) he method of claim 13, wherein said administering step comprises injecting into the tumor or infectious lesion.

26. (Withdrawn) The method of claim 13, wherein said administering step comprises injecting the subject within the same organ as the tumor or infectious lesion.

27. (Currently Amended) A therapeutic composition comprising (a) a physiologically acceptable solution or buffer, (b) an antigen presenting cell, and (c) an immunostimulatory cytokine or a nucleic acid encoding an immunostimulatory cytokine, wherein (i) the antigen presenting cell is not loaded or pulsed with antigens and (ii) the composition complies with standards of purity and quality control required for administration to humans.

28. (Previously Presented) The composition of claim 27, wherein the antigen presenting cell is a dendritic cell.

29. (Previously Presented) The composition of claim 28, wherein the dendritic cell is selected from the group consisting of a CD34⁺-derived dendritic cell, a bone marrow-derived dendritic cell, a monocyte-derived dendritic cell, a splenocyte derived dendritic cell, a skin-derived dendritic cell, a follicular dendritic cell, and a germinal center dendritic cell.

30. (Withdrawn) The composition of claim 27, wherein the antigen presenting cell is selected from a group consisting of a Langerhans' cell, an interdigitating cell, a B cell, and a macrophage.

31. (Previously Presented) The composition of claim 27, wherein the immunostimulatory cytokine is selected from the group consisting of interleukin-1 α , interleukin-1 β , interleukin-2, interleukin-3, interleukin-4, interleukin-6, interleukin-8, interleukin-9, interleukin-10, interleukin-12, interleukin-18, interleukin-19, interleukin-20, interleukin-23, interleukin-27, interleukin-1f3, interleukin-1f5, interleukin-1f6, interleukin-1f7, interleukin-1f8, interleukin-1f9, interleukin-1f10, interferon- α , interferon- β , interferon- γ , tumor necrosis factor α , transforming growth factor- β , granulocyte colony stimulating factor, macrophage colony stimulating factor, granulocyte-macrophage colony stimulating factor, the Flt-3 ligand, and the kit ligand.

32.-34. (Canceled)

35. (Previously Presented) The composition of claim 27, further comprising a carrier.

36. (Previously Presented) A therapeutic composition comprising (a) a pharmaceutically acceptable carrier, (b) an antigen presenting cell, and (c) an immunostimulatory cytokine or a nucleic acid encoding an immunostimulatory cytokine, wherein the antigen presenting cell is not loaded or pulsed with antigens.

37. (Previously Presented) The composition of claim 36, wherein the antigen presenting cell is a dendritic cell.

38. (Previously Presented) The composition of claim 37, wherein the dendritic cell is selected from the group consisting of a CD34⁺-derived dendritic cell, a bone marrow-derived dendritic cell, a monocyte-derived dendritic cell, a splenocyte derived dendritic cell, a skin-derived dendritic cell, a follicular dendritic cell, and a germinal center dendritic cell.

39. (Withdrawn) The composition of claim 36, wherein the antigen presenting cell is selected from a group consisting of a Langerhans' cell, an interdigitating cell, a B cell, and a macrophage.

40. (Previously Presented) The composition of claim 36, wherein the immunostimulatory cytokine is selected from the group consisting of interleukin-1 α , interleukin-1 β , interleukin-2,

interleukin-3, interleukin-4, interleukin-6, interleukin-8, interleukin-9, interleukin-10, interleukin-12, interleukin-18; interleukin-19, interleukin-20, interleukin-23, interleukin-27, interleukin-1f3, interleukin-1f5, interleukin-1f6, interleukin-1f7, interleukin-1f8, interleukin-1f9, interleukin-1f10, interferon- α , interferon- β , interferon- γ , tumor necrosis factor α , transforming growth factor- β , granulocyte colony stimulating factor, macrophage colony stimulating factor, granulocyte-macrophage colony stimulating factor, the Flt3 ligand, and the kit ligand.

41. (New) The composition of claim 27, further comprising a binder, lubricant, inert diluent, surface active, or dispersing agent.

42. (New) The composition of claim 27, wherein the composition is in the form of an emulsion in oily or aqueous vehicle or powder.

43. (New) The composition of claim 27, wherein the composition is in the form of capsule, gelatin capsule, sachet, tablet, troche, lozenge, bolus, electuary, paste, depot preparation, nasal spray, or suppository.

44. (New) The composition of claim 27, wherein the physiologically acceptable solution or buffer comprises AIM5 medium, Collins solution, Wisconsin solution, Belzer solution, Eurocollins solution, or lactated Ringer's solution.

45. (New) The composition of claim 27, wherein the physiologically acceptable solution or buffer comprises glycocholate, methoxysalicylate, cutric acid, cocoa butter, glycerides, polyalkylene glycols, polyethylene glycol, oils of vegetable origin, hydrogenated naphthalenes, lactose, polyoxyethylene-9-lauryl ether, glycocholate or deoxycholate.

46. (New) The composition of claim 27, in dosage form enclosed in ampoules, disposable syringes, multiple dose vials made of glass or plastic, a nebulizer, atomizer, transdermal patch or transmucosal patch.

47. (New) The composition of claim 27, further comprising biodegradable and/or biocompatible polymers.

48. (New) The composition of claim 47, wherein the biodegradable and/or biocompatible polymers comprise ethylene vinyl acetate, polyanhydrides, polyglycolic acid, collagen, polyorthoesters, and polylactic acid.

49. (New) The composition of claim 27, comprising about 1 to about 2000 mg of the cytokine.

50. (New) The composition of claim 36, wherein the carrier comprises ethylene-vinyl acetate copolymer particles, osmotic pumps, implantable infusion systems, and liposomes.

51. (New) The composition of claim 36, wherein the carrier comprises dispersion media, a coating, or an absorption delaying agent.

52. (New) The composition of claim 36, wherein the carrier is a finely divided solid carrier.

53. (New) The composition of claim 38, wherein the CD34⁺-derived dendritic cell is cultured in the presence of at least one factor selected from the group consisting of granulocyte colony stimulating factor, granulocyte macrophage colony stimulatory factor, tumor necrosis factor alpha, interleukin 4, the Flt-3 ligand, and the kit ligand.

54. (New) The method of claim 1, comprising administering the cytokine in an amount ranging from about 0.01 to about 50 mg/kg of body weight of the subject.

55. (New) The method of claim 52, comprising administering about 0.1 to about 10 mg/kg of the cytokine.